



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,840	10/03/2005	Seigo Kano	Q86624	2645
23373 7590 12/31/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER VANAMAN, FRANK BENNETT	
			ART UNIT 3618	PAPER NUMBER
			MAIL DATE 12/31/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/532,840

**Applicant(s)**

KANO ET AL.

**Examiner**

Frank B. Vanaman

**Art Unit**

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 9-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☒ Claim(s) 3, 5-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Status of Application***

1. Applicant's amendment, filed Sept 16, 2008, has been entered in the application. Claims 1-30 remain pending, claims 9-30 are withdrawn from consideration.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klemen et al. (US 6,022,287) in view of Morisawa et al. (US 5,904,631). All references were cited previously. Klemen et al. teach a hybrid drive unit adapted to accommodate, at its input, the output of an internal combustion engine, and to drive, via its output, a vehicle drive, having an input shaft (66) which may be connected to an internal combustion engine (see col. 1, lines 24-39), an output shaft (158 and 92; ), a first electric motor having a stator and rotor (26, 28), a power splitting planetary gear (84) having a first rotary element (82) connected to the input shaft, a second rotary element (104) connected to the first motor and a third rotary element (102) connected to the output shaft (through one or more of 112, 148, 176, 178, 172, 174, 92), a second rearward electric motor having a stator and rotor (32, 34), a transmission (170, 192) co-axial with the planetary gear set and first and second motors, which transmits the rotation of the second motor's rotor (through 56, 168, etc), the stators of the motors being fixed to a casing portion (14) which includes at least a forward member (20) for connecting to an engine having mating connector arrangement and thus which 'can be fixed' to an engine, and a mounting section (12) which 'can be supported' by a body such as the body shown there-below, to the breadth these limitations are actually claimed, the rotor of the second motor being arranged to be supported by supporting members (such as elements 156) located rearwardly of the motor and acting through bearings (238), the mounting section (proximate 12) overlapping at least a portion of the rear supporting members in an axial direction (note that forward most ends of members 156 are overlapped in an axial direction by the rearward-most portion of element 12), the rotor of the first motor being arranged to be supported by supporting members (such as elements 54) located forwardly of the motor and acting through bearings (142).

The reference to Klemen et al. fails to teach that the two motors, transmission and planetary gear are located in a line with the second electric motor being rearward most. Morisawa et al. teach (see, e.g., figure 8) that it is well known to provide two electric motors, a power splitting gear set and a transmission gear set in a linear series, rather than having a gearing element located internally of a motor rotor) inside a casing, and where a motor (MG1) is located rearward-most in the line of elements. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the elements taught by Klemen et al. in a linear series as taught by Morisawa et al., with the second motor being rearward-most, as taught by Morisawa et al., to reduce the overall diameter of the assembly, and/or so as to not require excessively small-sized gearing. Note that the arrangement taught by Morisawa et al. beneficially allows the gearing to have a diameter as large as a motor without requiring the over-all casing to be of larger size, and additionally, the removal of the gearing from the location internal to the motor rotor envelope (compare to Klemen et al. at figure 1) thus enabling the motor to be more compact, as it is no longer necessary for the rotor to be so large as to accommodate a functional planetary gearing.

While the reference to Klemen et al. fails to explicitly teach that the output shaft is "interlocked with vehicle drive wheels", the taught arrangement is intended to be installed between an engine output and the portion of a vehicle which causes it to be driven, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to connect the output of the arrangement taught by Klemen et al. to be interlocked with vehicle wheels so as to actually move the vehicle when the engine and/or motors are engaged to operate in a driving fashion.

***Allowable Subject Matter***

4. Claims 3 and 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Comments***

5. Applicant's comments, filed with the amendment, have been considered, but are moot in view of the new and/or modified rejection now applied, which application is in direct response to applicant's amendment.

***Conclusion***

6. Applicant is reminded that claims 9-30 are withdrawn from consideration at this time. No generic claim is allowed

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450,

Or faxed to:

Application/Control Number: 10/532,840  
Art Unit: 3618

Page 5

PTO Central Fax: 571-273-8300

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**

/Frank B Vanaman/  
Primary Examiner, Art Unit 3618